Manitoba Energy, Science and Technology
Manitobans' attitudes, awareness and behaviour
toward climate change issues and action
November 2005

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Introduction

Background

In September 2005, The *Climate Change Community Challenge (C4) office* [1] commissioned kisquared to design and complete a research study that examines Manitoban's perceptions of climate change. The emphasis of this opinion research was to examine the overall attitudes, awareness, and behaviours of Manitobans toward climate change issues in and their willingness to participate in solutions.

Impetus for Research

The study was undertaken to achieve three objectives. *First,* the study gathers statistically representative data to provide baseline information from which current program initiatives can be measured and future public climate change policy and programming can be developed. This study was provincial in scope and included the four Climate Change Community Challenge / One Tonne Challenge Program (C4/OTC) communities. These C4/OTC communities currently receive funding to implement innovative energy efficiency and GHG emissions reduction projects. At the time of this research study, four Manitoba communities received C4/OTC funding: Brandon, Morden/Winkler, Peguis First Nation, and Thompson. This necessitated representative sampling of all four communities in order to gather baseline information. For that reason, survey results from those communities are separated out from the rest of the province in the attached appendices.

Second, the study enhances current knowledge and understanding of Manitobans' attitudes, awareness and behaviours surrounding climate change action. *Third,* survey results provide insight for the Government of Manitoba to effectively engage local governments, communities and individual citizens to actively participate in climate change solutions/activities, GHG emission reducing projects and energy efficiency.

Methodology

Consultations between kisquared, representatives from the C4 office, the provincial Climate Change Branch and Climate Change Connections *(a not-for-profit environmental organization)* occurred throughout the project, particularly around questionnaire design and sample development.

[1] The C4 office, formerly housed in the Climate Change Branch, is now with Green Manitoba Eco-Solutions office, Department of Manitoba Energy, Science & Technology. The C4 office delivers community - based programming designed to increase awareness, capacity and actions related to GHG emissions reductions, energy efficiency, and the overall solutions to climate change issues both at the individual and community level.

Sample and questionnaire design

In order to conduct a survey of Manitobans' perspectives on climate change, a sample representative of the population of Manitoba was developed. A gender quota was established to ensure accurate representation of men and women in the number of completed surveys. A further quota was established to ensure representation from the four C4/OTC communities, the city of Winnipeg and the rest of Manitoba. General public sample for Manitoba was obtained from ASDE, a reputable supplier of sample and a member of the Marketing Research and Intelligence Association (MRIA). The sample was broken into appropriate geographic segments and randomized before interviewing.

A 39-question equivalent survey instrument was designed by kisquared in collaboration with Green Manitoba, representatives from the department providing sign-off on the final version. The finalized questionnaire's format and wording were pre-tested by kisquared before fielding.

Data collection and analysis

kisquared conducted telephone interviews with 1601 Manitobans aged 18 and over during the period October 6 - October 21, 2005. The margin of error for the current data, based on a sample of 1601 out of a provincial population of 1,159,012, is ±3.62%, 19 times out of 20 (see Figure 1 for more detail on sampling and margins of error). Data analysis included weighting the data by population based on region and gender, so that results are proportionate to the provincial population overall.

Figure 1 SAMPLE FRAME AND MARGIN OF ERROR

Community		Winkler/ Morden	Brandon	Peguis First Nation*	Thompson	Winnipeg	Rest of MB	Total	Total, weighted equiv.**
Population		18,620	43,020	2,028	13,899	646,386	435,059	1,159,012	1,159,012
Pct of MB population		1.6%	3.7%	0.2%	1.2%	55.8%	37.5%	100%	100%
Completed	Survey N, total	200	200	138	200	420	443	1601	733
	N, female	100	100	61	100	210	221	792	372
	N, male	100	100	77	100	210	222	809	361
	MOE (95% level)	±6.86%	±6.90%	±7.77%	±6.83%	±4.78%	±4.65%	-	±3.62%

Note: Population figures are 2003 estimates provided in the *Manitoba Health Population Report - June 1, 2003.*

Estimated population levels for Peguis First Nation vary widely, depending on the source. For example, the Peguis website claims a population of 7,200, while the 2001 census counted 2,515, and the *Manitoba Health Population Report - June 1, 2003* claims a population of 2,028. Bruce Howlett of the former Human Resources Development Canada (Winnipeg: Manitoba Aboriginal Affairs Secretariat, 2001) notes in his report titled *Aboriginal People in Manitoba, 2000* that Peguis First Nation is one of two bands in Manitoba with a significant population living off-reserve, approximately 1,600 members living in the City of Winnipeg. As a result, the most recent measure of population living on-reserve (2,028) has been used for this research study and stems from the *Manitoba Health Population Report - June 1, 2003.

****Weighting was based on population by region and gender.**

Comparative analysis

Comparisons of the data gathered in this study could be made with the results from a national research study. In spring 2005, Natural Resources Canada (NRCAN) commissioned EKOS Research Associates Inc. to conduct the annual national tracking study entitled *Public Perceptions of Climate Change*. Several questions from the EKOS questionnaire were used in this survey so that results of the national study and this provincial research study could be compared. Two factors explain the significant differences in results between this study and the NRCAN national study: time lapsed, and methodology. Although public opinion may have evolved during the period between the conduct of the national research study (March 29 - April 6, 2005) and this study (October 6 - 21, 2005), methodology explains the differences in these results even more. The NRCAN tracking study used a telephone survey of 1504 Canadians aged 18 and over. This number of surveys produces statistically representative data at the national level, meaning comparisons can be made between the results found in this research study with the NRCAN results *at the national level*.

Executive summary

Are Manitobans concerned about climate change?

- The vast majority (84%) are concerned about climate change. The concern level of Manitobans matches the level of all Canadians (as measured in the 2005 NRCAN study).
- Some subgroups express even greater concern than the Manitoba average: those already aware of climate change programs and initiatives in their communities, retirees, and those with family incomes of more than $80,000 yearly.
- Concerns about climate change rise with age; the youngest age cohort (18 to 25), while still highly concerned in general, exhibit lower concern than do those in other age cohorts.
- A rural/urban divide in the province also explains differences in levels of concern: Winnipeggers are more concerned about climate change than are rural Manitobans.

Are Manitobans familiar with the Kyoto Protocol?

- More than two-thirds of Manitobans say they are familiar with the Kyoto Protocol (71%), significantly more than the national average of 57% (2005 NRCAN study) and the "Prairie" average of 44% (also in the NRCAN 2005 study, which produced findings for Manitoba and Saskatchewan based on extremely limited sampling – see pages 3 to 4 for a summary of the methodological weaknesses of that study's results regarding the "Prairie" region).
- Both age and income play a role in understanding Manitobans' familiarity with Kyoto. As both rise, so too does familiarity with the Protocol.
- Region within Manitoba plays a role in familiarity with Kyoto: Winnipeggers demonstrate the greatest degree of familiarity (77%), followed by Brandonites (70%). In contrast, fewer than half of Peguis residents (41%) are familiar with the Kyoto Protocol.

Are Manitobans seeing effects of climate change in their community?

- Three out of five Manitobans surveyed (64%) say they are already seeing the effects of climate change in their own community, and a further 12% anticipate seeing effects within the next 5 years. This finding is somewhat lower than the national average of 77%.
- Both education and income affect Manitobans' likelihood of perceiving already-occurring effects of climate change: the higher their education and the greater their income, the more readily respondents report seeing the effects of climate change.
- Of those seeing or experiencing effects of climate change, extreme weather (64%) is the most frequently reported, with warmer weather the second-most frequent (35%). One in four Manitobans note changing precipitation patterns and an increase in natural disasters like floods and hurricanes. Peguis residents are much more likely (34%) to say they have noticed changing water levels than are the rest of Manitobans (15%).

What impact will climate change have on our day-to-day lives?

- Most Manitobans believe climate change will have a negative impact on farming, winter roads in the north, fishing, wildlife migration patterns, wild food sources for people and animals, forestry, availability and quality of fresh water, and the overall health and safety of people in their own communities.
- The impacts resulting from a changing climate are perceived differently by region, with a consistently more negative impact perceived by residents of Winnipeg and Peguis First Nation. Peguis residents predict the greatest negative impact on their wild food sources, fresh water, winter roads and the general health and safety of people in their community.

Are Manitobans aware of community climate change programs?

- While 17% of Manitobans overall report having heard about a climate change program or initiative in their own community, a higher proportion of those in C4/OTC communities (24%) are aware of such programs.
- Asked if they have received literature or read stories related to climate change in their local newspaper on initiatives in their own community, one in five Manitobans (20%) say they have. Again, a greater proportion of residents from C4/OTC communities (27%) have read such material, compared to Manitobans overall.
- Manitobans more likely to be knowledgeable about climate change programs in their community tend to be those having a higher level of concern about climate change, males, or those with higher education and income levels.

Are Manitobans willing to pay for higher cost items if it means lower energy consumption?

- The answer is yes – 77% of all Manitobans are "early adopters" of climate-friendly products willing to pay a higher up-front price in order to reduce energy consumption.
- Income is an important variable explaining whether Manitobans will pay higher up-front costs on climate-friendly products. The results indicate that Manitobans with lower levels of disposable income may not be able to afford the higher up-front costs associated with items such as a hybrid car or energy efficient furnace, even though those purchases promise cost savings over the long-term. Likewise, retirees and the not employed are less likely to pay higher up-front costs, probably for similar reasons.
- Fully four-fifths of all Manitobans (81%) are price-motivated, meaning they will modify their behaviour in response to rising energy prices.

Are Manitobans aware of the impact of low-cost initiatives?

- When it comes to not idling one's car, 92% of all Manitobans are aware of the positive implications for reducing GHG emissions. Many are also aware of initiatives like composting (72%), using a programmable thermostat (71%), and filling one's automobile tires accurately (65%). Fewer Manitobans (50%) make the connection between reducing GHG emissions and installing/using a low-flow showerhead.

What low cost energy-saving initiatives are Manitobans doing or willing to undertake?

- Most Manitobans (75%) report that they already refrain from idling their vehicle, 69% say they inflate their vehicle tires accurately, 50% claim to use low-flow showerheads, 46% to compost and 45% to use programmable thermostats. These findings indicate that although many Manitobans may be undertaking low-cost energy saving initiatives already, an opportunity remains for the rest of Manitoba to make the effort.
- Those not yet following the above low-cost, climate-friendly behaviours provided data on the degree of motivation they feel towards adopting each: 77% say they are motivated to keep their tires inflated, and 71% are motivated to refrain from idling their car. Installing a programmable thermostat (61%) or low-flow showerhead (60%), and composting kitchen waste (53%) are the least popular behaviour changes among those not already making the effort.
- Manitobans who express higher levels of concern about climate change, those who have achieved higher levels of formal education, and those with children aged under 18 in their household are those more likely to be motivated to change their behaviour.

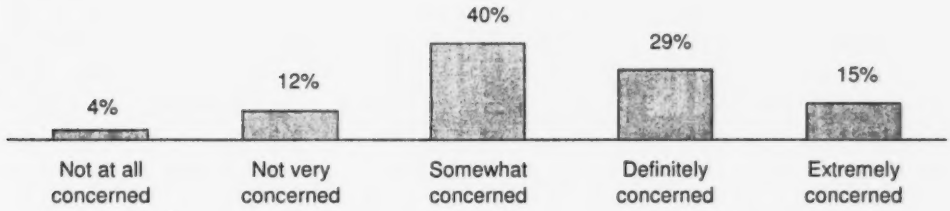
Awareness

Concern about climate change

Respondents were asked to indicate their level of concern regarding the issue of climate change. Very few Manitobans (4%) are not at all concerned with climate change; in fact, the vast majority of Manitobans (84%) report being concerned about the issue of climate change to some degree, and 15% state they are extremely concerned about it.

Figure 2 LEVEL OF CONCERN ABOUT CLIMATE CHANGE

How concerned are you personally about the issue of climate change?



- When compared to the provincial and national results from the NRCAN study (see Figure 3 below), the levels of concern expressed by Manitobans about climate change appear to be consistent with Canadian averages and somewhat higher than the reported NRCAN Prairie results.

Figure 3 COMPARISON WITH PREVIOUS STUDY: LEVEL OF CONCERN

Question: How concerned are you personally about the issue of climate change?	MB Study	NRCAN– Prairie results[2]	NRCAN – National results[3]
Not at all concerned	4%	3%	4%
Not very concerned	12%	13%	6%
Somewhat concerned	40%	37%	35%
Definitely concerned	29%	38%	34%
Extremely concerned	15%	8%	18%

[2] Government of Canada, Natural Resources Canada, *"Public Perceptions of Climate Change: Annual Tracking Survey, Spring 2005"*. Ottawa: 2005.
[3] Ibid.

Based on cross-tabulations, the following observations can be made:

- Concern for climate change is higher among retired individuals.
- Individuals with income levels between $80,000 and $100,000 express higher levels of concern about climate change than do Manitobans from other income cohorts.
- Age also plays a role in understanding climate change concern: the younger the Manitoban, the less is the level of concern. Those in the oldest cohorts express the greatest concern about climate change.
- A reinforcing relationship occurs between Manitobans indicating the highest level of concern about climate change and whether those same respondents have heard of climate change programs or initiatives in their community. Respondents who indicated they are definitely concerned or extremely concerned are more likely to have heard of climate change programs or initiatives in their community, and *vice versa* (see Figure 4 below).

Figure 4 RELATIONSHIP BETWEEN CONCERN ABOUT AND KNOWLEDGE OF CLIMATE CHANGE PROGRAMS OR INITIATIVES

	How concerned are you personally about the issue of climate change?				
	Not at all concerned	Not very concerned	Somewhat concerned	Definitely concerned	Extremely concerned
Manitobans overall	4%	12%	40%	29%	15%
Those who have heard about climate change programs or initiatives in their community.	2%	6%	37%	37%	19%

- Statistical analysis reveals that a rural/urban divide does appear to explain differences in levels of concern about climate change. Respondents in Winnipeg are generally more concerned about climate change than those in rural Manitoba, even when compared to the Manitobans from the C4 communities (see Figure 5, below).

Figure 5 PERSONAL CONCERN ABOUT CLIMATE CHANGE VARIES BY REGION

Region	How concerned are you personally about the issue of climate change?
	Mean
Winnipeg	3.48
Rest of MB (non-C4)	3.29
C4 Communities combined	3.32
Thompson	3.32
Brandon	3.31
Peguis	3.23
Morden / Winkler	2.96

Note: Mean score is based on a scale where 1 is not at all concerned, 2 is not very concerned, 3 is somewhat concerned, 4 is definitely concerned and 5 is extremely concerned.

Kyoto Protocol familiarity

Respondents were asked to indicate their level of familiarity with the Kyoto Protocol. As indic[illegible] in Figure 6 below, there appears to be a fairly even split between being familiar, being moderately familiar and being not at all familiar. The vast majority of Manitobans (71%) express some degree of familiarity with Kyoto – significantly higher than the national average (57%).

Figure 6 FAMILIARITY WITH THE KYOTO PROTOCOL

How familiar are you with something called "The Kyoto Agreement or Protocol"?

As shown in Figure 7, Manitobans express even higher levels of familiarity than the results for the NRCAN Prairie region (including Manitoba and Saskatchewan). The NRCAN study reports that fewer than half (44%) of the respondents in the Prairie region are familiar with the Protocol.

Figure 7 KYOTO FAMILIARITY: COMPARISON WITH NRCAN STUDY

How familiar are you with something called "The Kyoto Agreement or Protocol"?	MB Study	NRCAN – Prairie results[4]	NRCAN – National results[5]
Familiar	34%	21%	29%
Moderately familiar	37%	23%	28%
Familiarity total	**71%**	**44%**	**57%**

Note: Results for the Prairie region of the NRCAN study are based on a small sample with a very large associated margin of error and should therefore be treated with caution.

[4] Ibid.
[5] Ibid.

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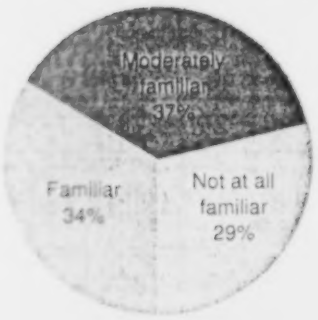

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[4] Ibid.
[5] Ibid.

Based on cross-tabulations, the following observations can be made:

- Manitobans with greater concern about climate change also tend to be those with greater familiarity with the Kyoto Protocol.
- Respondents who are more familiar with the Kyoto Protocol are more likely to have heard about climate change programs or initiatives in their own community.

Figure 8 RELATIONSHIP BETWEEN KYOTO FAMILIARITY AND AWARENESS OF CLIMATE CHANGE PROGRAMS OR INITIATIVES

	How familiar are you with something called "The Kyoto Agreement or Protocol"?		
	Familiar	**Moderately familiar**	**Not at all familiar**
Manitobans overall	34%	38%	28%
Those who have heard of climate change programs or initiatives in their community.	42%	41%	17%

Based on cross-tabulations, the following observations can be made:

- Familiarity with the Kyoto Protocol is higher among men, and respondents currently in or retired from the workforce.
- Income is positively related to familiarity with the Kyoto Protocol: the greater the level of income, the greater the familiarity with the Protocol.
- Age also plays a role in understanding awareness of the Protocol. Manitobans 18 to 24 are significantly less aware of Kyoto (52% indicating "not at all familiar") than any other age group of Manitobans.
- An important finding discloses regional differences in awareness of Kyoto. Respondents with the highest degree of awareness are Winnipeggers (77% familiar with Kyoto), followed by those from Brandon (70%). Those least aware of Kyoto are those living in Peguis First Nation – as Figure 9 shows, only 41% are familiar with the Protocol.

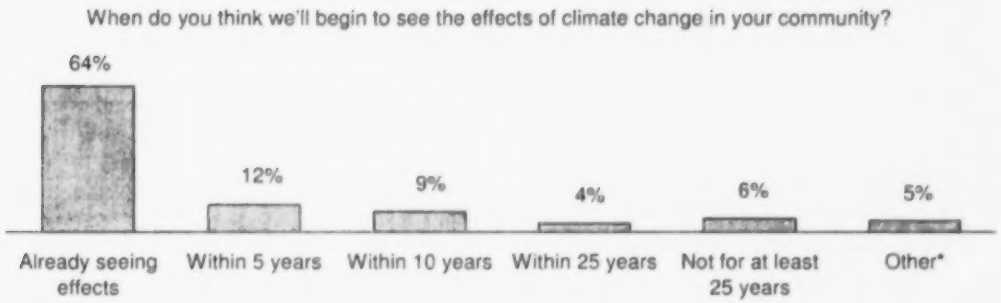
Figure 9 URBAN/RURAL LOCALE AND KYOTO AWARENESS

Region	**Manitobans familiar with Kyoto**
Winnipeg	77%
Rest of MB (non-C4)	66%
C4 Communities combined	67%
Brandon	70%
Thompson	65%
Morden / Winkler	64%
Peguis First Nation	41%

Expected timeframe for negative effects

Respondents were asked to indicate when they expect to see the effects of climate change in their community. As indicated in Figure 10, the majority of Manitobans (64%) believe they are already seeing the effects of climate change.

Figure 10 CLIMATE CHANGE EFFECTS



Note (*): Other includes those who responded that they will never see the effects of climate change in their community, that the appearance of such effects will depend on specific events or actions occurring, and that such effects are evident and ongoing and occur naturally.

The NRCAN study reveals that slightly more than three-quarters (77%) of Canadians report already having seen the effects of climate change, whereas slightly less than two-thirds (64%) of Manitobans report such effects (see Figure 11 below).

Figure 11 COMPARISON WITH NRCAN STUDY

Question: When do you think we'll begin to see the effects of climate change in your community?	MB Study	NRCAN – Prairie results[6]	NRCAN – National results[7]
Already seeing effects	64%	79%	77%
Within 5 years	12%	2%	4%
Within 10 years	9%	5%	6%
Within 25 years	4%	4%	4%
Not for at least 25 years	6%	6%	6%
Never/Depends/Always part of nature	5%	1%	2%

Based on cross-tabulations, the following observations can be made:

[6] Ibid.
[7] Ibid.

- Level of concern about climate change is related to the timeframe within which Manitobans believe they will begin to see the effects of climate change in their community. Those reporting themselves extremely concerned about climate change are more likely than those with lower concern levels to think the effects of climate change are already perceptible.
- Likewise, Manitobans who have heard of climate change programs or initiatives in their own community are more likely to think the effects of climate change are already being seen.
- There is also a statistically significant relationship between when respondents expect to see the effects of climate change and their household education and income. The higher the level of education and income, the more likely respondents are to indicate they are already seeing the effects of climate change.

Experiencing effects of climate change

Manitobans already seeing the effects of climate change were asked to detail the specific effects they have witnessed or experienced (see Figure 12). Well over half of these Manitobans have witnessed or experienced extreme weather (64%), compared to only 1 in 5 Canadians overall who report the same (NRCAN study finding of 20%). Manitobans are significantly more in touch with the impact of climate change as regards extreme weather and even warmer weather patterns – 35% in Manitoba have experienced this change, compared to 38% in Canada overall.

Figure 12 EFFECTS OF CLIMATE CHANGE IN MANITOBA

Effect	Percentage of respondents
Extreme weather	64%
Warmer weather	35%
Changing precipitation patterns	28%
Natural disasters (e.g., floods/hurricanes)	27%
Changing water levels	15%
Air quality suffering	6%
Arctic ecosystems	6%
Loss of habitat	4%
Health impacts (e.g., asthma)	3%
Other changes in fauna (wildlife, insects)	1%
Other seasonal, temperature or weather pattern changes	1%
Other reference to pollution or garbage	1%
Greater wind/windier winters	<1%
Colder temperatures/longer winters	<1%
Poorer crops/shorter growing season	<1%
Earlier snowfall/more snow	<1%
Other changes in flora (plants, trees)	<1%
Greater UV radiation	<1%
Economic and financial impacts	<1%
Acid rain	<1%
Reduced sunlight	<1%

- Regional differences appear regarding the effects of climate change:
  - For changing water levels, this study's overall response is 15%, but for Brandon respondents (5%) this effect is not nearly as often experienced or witnessed as it is for those in Peguis First Nation (34%) or Morden / Winkler (22%).
  - For changing precipitation patterns, the overall response is 28%, but this effect is not witnessed or experienced as much by residents in Winnipeg (22%) as by respondents in the rest of Manitoba (39%), Morden/Winkler (34%), and Thompson (33%).
  - For natural disasters, respondents in Thompson (8%) and Peguis First Nation (9%) are less likely to report witnessing or experiencing this effect than the study average (28%), whereas Winnipeg respondents are more likely to do so (34%).

Climate change impacts

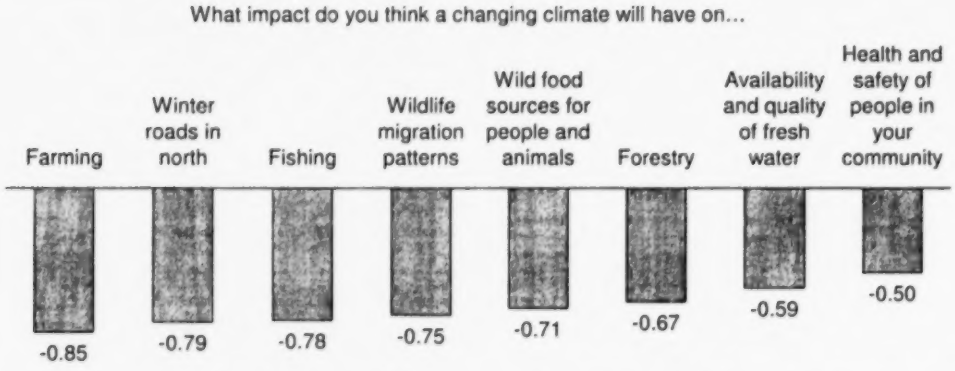
Respondents were asked to predict the effect of climate change on a variety of factors. The scale used to collect data for these questions ran from –2 (extremely negative impact) to +2 (extremely positive impact), with a mid-point of zero (no impact).

Impact comparisons

Overall, Manitobans clearly believe that climate change will have negative consequences for everything from farming to the health and safety of people in their own communities. Figure 13 summarizes the impact that Manitobans predict a changing climate will have on a variety of elements.

The most severe impact indicated was on farming (-.85), followed closely by northern winter roads (-.79), fishing (-.78), wildlife migration patterns (-.75) and wild food sources for both people and animals (-.71). Additional negative impacts were registered with forestry (-.67), the availability and quality of fresh water (-.59) and more generally, on the health and safety of the people in their own communities (-.50).

Figure 13 CLIMATE CHANGE IMPACTS



Note: Overall scores are based on the scale for these questions, which ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observations can be made:

- As the level of education and concern about climate change increases, the perceived negative impact of climate change on the elements surveyed also increases.
- Gender also plays a role in understanding the perceived impact of climate change. Female Manitobans tend to think that a changing climate will have a greater negative impact on all elements tested than do male Manitobans.

- The impacts of a changing climate are perceived differently across regions of the province. The perceived negative impacts of climate change are consistently higher for residents in the city of Winnipeg and Peguis First Nation. Of greatest concern to Manitobans from Peguis are negative impacts on their wild food sources, fresh water, their winter roads, fishing, and the general health and safety of the people in their community.

Figure 14 NEGATIVE CLIMATE CHANGE IMPACTS BY REGION

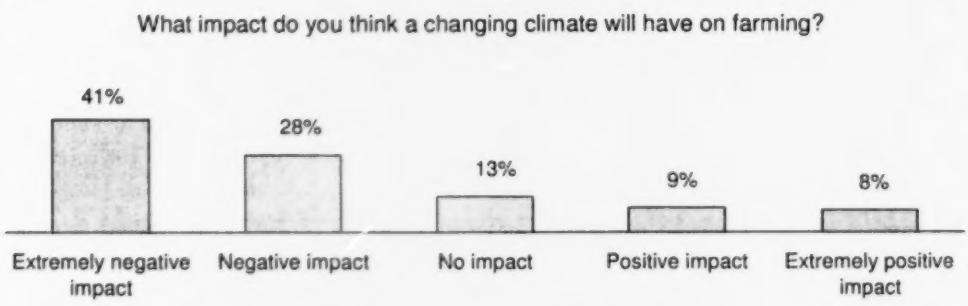
	What impact do you think a changing climate will have on...							
Region	**Farming**	**Winter roads in north?**	**Fishing**	**Wildlife migration patterns**	**Wild food sources**	**Forestry**	**Fresh water**	**Health and safety**
Winnipeg	-.97	-.96	-.94	-.90	-.86	-.84	-.76	-.69
Rest of MB (non-C4)	-.74	-.59	-.60	-.57	-.53	-.46	-.40	-.28
C4 Communities	-.51	-.50	-.47	-.56	-.47	-.33	-.34	-.26
Peguis	-.98	-.94	-.93	-.89	-1.10	-.71	-.94	-.92
Morden/Winkler	-.79	-.67	-.63	-.76	-.68	-.49	-.36	-.32
Thompson	-.46	-.77	-.42	-.54	-.43	-.28	-.32	-.21
Brandon	-.39	-.32	-.39	-.47	-.36	-.27	-.31	-.22

Note: Overall scores are based on the scale for these questions, which ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Farming

Slightly more than two-thirds of Manitobans (69%) think climate change will have a negative impact on farming in Manitoba (see Figure 15). However, 13% believe there will be no impact and 17% think there will be a positive impact.

Figure 15 IMPACTS OF CLIMATE CHANGE ON FARMING



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observation can be made:

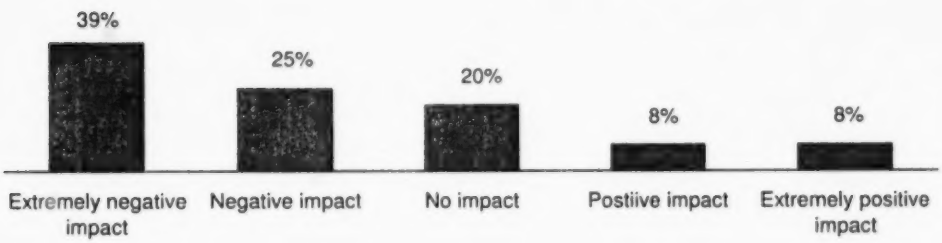
- Residents of Winnipeg, Peguis First Nation, and the rest of Manitoba (all of Manitoba, excluding Winnipeg and the C4 communities) are significantly more likely than are residents of Brandon, Thompson, or Morden/Winkler to say that the effect of a changing climate will have an extremely negative impact on farming.

Northern winter roads

Almost two-thirds (64%) of Manitobans believe a changing climate will have some negative impact on winter roads in the north (see Figure 16). One-fifth of Manitobans (20%) believe it will have no impact and about one-sixth (16%) believe it will have a positive impact.

Figure 16 IMPACTS OF CLIMATE CHANGE ON WINTER ROADS

What impact do you think a changing climate will have on winter roads in the north?



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observation can be made:

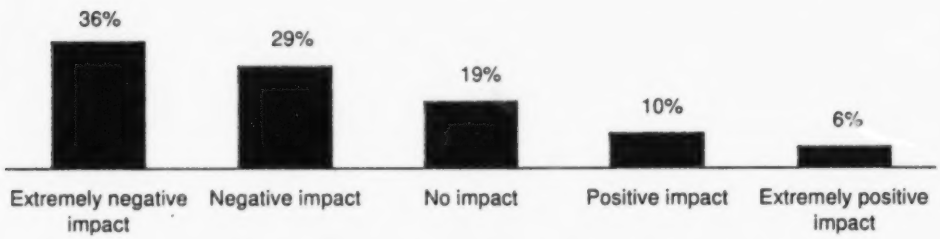
- Residents of Winnipeg, Thompson, and Peguis First Nation are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on winter roads in the north.

Fishing

About two-thirds of Manitobans (65%) believe a changing climate will have some negative impact on fishing (see Figure 17). About one-fifth of Manitobans (19%) believe it will have no impact and about one-sixth (16%) believe it will have a positive impact.

Figure 17 IMPACTS OF CLIMATE CHANGE ON FISHING

What impact do you think a changing climate will have on fishing?



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

In comparison to NRCAN's study, which indicated that only 7% of Canadians believe climate change will have no impact on fishing, 19% of Manitobans believe it will have no impact. This could be explained by a popular belief that Manitoba is water-rich and therefore not as vulnerable to climate change in this respect.

Based on cross-tabulations, the following observations can be made:

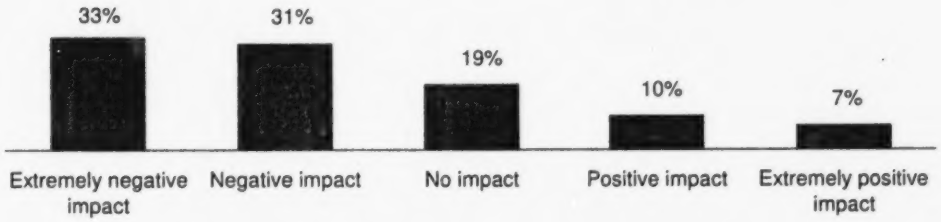
- The perceived negative impact of climate change on fishing is higher for Aboriginal People and those not employed.
- Residents of Peguis First Nation and Winnipeg are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on fishing.

Wildlife migration patterns

As indicated in Figure 18 below, 64% of Manitobans believe a changing climate will have some negative impact on wildlife migration patterns. Almost one-fifth (19%) believe it will have no impact and one-sixth (17%) believe it will have a positive impact.

Figure 18 IMPACTS OF CLIMATE CHANGE ON WILDLIFE MIGRATION PATTERNS

What impact do you think a changing climate will have on wildlife, that is to say the traditional habitat of wild animals and their movement from one place to another?



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observations can be made:

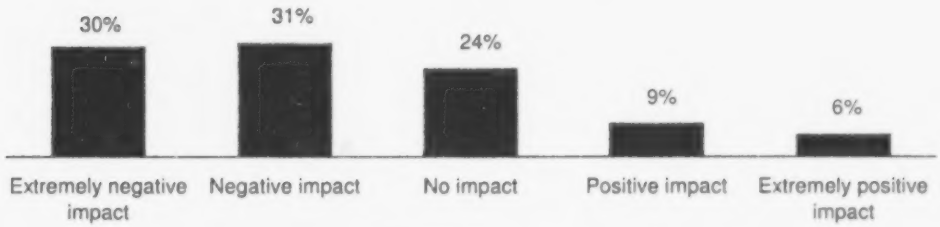
- The perceived negative impact of climate change on wildlife migration patterns is higher among those aged 25 to 44.
- Residents of Winnipeg, Thompson, and Peguis First Nation are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on wildlife migration patterns.

Wild food sources

Three out of five Manitobans (61%) believe climate change will have some negative impact on wild food sources (see Figure 19). Roughly one-quarter of Manitobans (24%) believe it will have no impact and 15% believe it will have a positive impact.

Figure 19 IMPACTS OF CLIMATE CHANGE ON WILD FOOD SOURCES

What impact do you think a changing climate will have on wild food sources for people and animals such as berries?



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observations can be made:

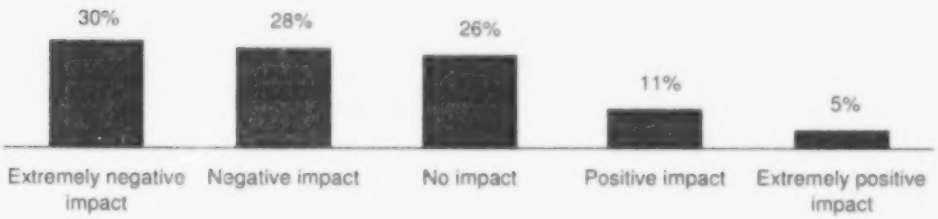
- The perceived negative impact of climate change on wild food sources for people and animals is higher among those aged 25 to 34 and those not employed.
- Residents of Peguis First Nation are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on wild food sources for people and animals.

Forestry

As Figure 20 shows, 58% of Manitobans believe a changing climate will have some negative impact on forestry. Just over one-quarter (26%) believe it will have no impact, and 16% believe it will have a positive impact.

Figure 20 IMPACTS OF CLIMATE CHANGE ON FORESTRY

What impact do you think a changing climate will have on forestry?



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Comparison with NRCAN survey results reveals that more Manitobans than the national average believe climate change will have *no impact* on the forestry sector, and fewer Manitobans believe it will have a *positive impact* (see Figure 21).

Figure 21 IMPACT ON FORESTRY: COMPARISON WITH NRCAN STUDY

Question: What impact do you think a changing climate will have on forestry?	MB Study	NRCAN – Prairie results[8]	NRCAN – National results[9]
Negative impact	58%	62%	66%
No impact	26%	11%	10%
Positive impact	16%	23%	22%

Based on cross-tabulations, the following observations can be made:

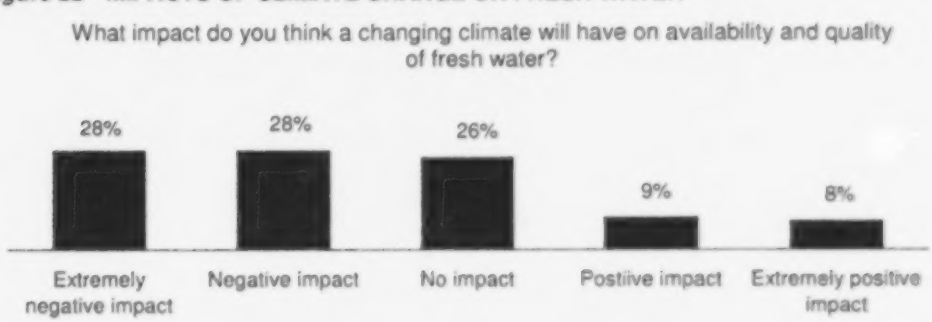
- The perceived negative impact of climate change on forestry is higher among respondents aged 45-54, and those with family incomes under $20,000 or over $100,000.
- Residents of Peguis First Nation and Winnipeg are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on forestry.

[8] Ibid.
[9] Ibid.

Fresh water

Slightly more than half of Manitobans (56%) think climate change will have some negative impact on the availability and quality of fresh water (see Figure 22). Slightly more than one-quarter of Manitobans (26%) believe it will have no impact, and one-sixth (17%) think it will have a positive impact.

Figure 22 IMPACTS OF CLIMATE CHANGE ON FRESH WATER



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

The NRCAN study found a national average of 13% who believe climate change will have *no impact* on the availability and quality of fresh water; this study indicates the percentage of Manitobans who feel so is 26%, or double the proportion. Correspondingly fewer Manitobans than Canadians overall believe climate change will have a *negative impact* on fresh water. This may be due to popular perceptions that Manitoba is a water-rich province that is not relatively immune to such impacts. The NRCAN Prairie results (which have a much lower statistical reliability than the present study) tend to resemble national results.

Figure 23 IMPACT ON FRESH WATER: COMPARISON WITH NRCAN STUDY

Question: What impact do you think a changing climate will have on availability and quality of fresh water?	**MB Study**	**NRCAN – Prairie results[10]**	**NRCAN – National results[11]**
Negative impact	56%	70%	66%
No impact	26%	9%	13%
Positive impact	17%	19%	19%

Based on cross-tabulations, the following observations can be made:

- The perceived negative impact of climate change on the availability and quality of fresh water is higher among those with children under the age of 18 living in the household.

[10] Ibid.
[11] Ibid.

- Those with family incomes under $60,000 or over $80,000 believe the impact of climate change on fresh water will be more negative than do Manitobans from other income levels.
- Residents of Peguis First Nation are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on fresh water.

Health and safety

As shown in Figure 24, slightly more than half of Manitobans (52%) think that climate change will have a negative impact on the health and safety of the people in their community. Slightly more than one-third (34%) of Manitobans believe it will have no impact, and 15% believe there will be a positive impact.

Figure 24 IMPACTS ON HEALTH AND SAFETY

What impact do you think a changing climate will have on the health and safety of the people in your community?

Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observations can be made:

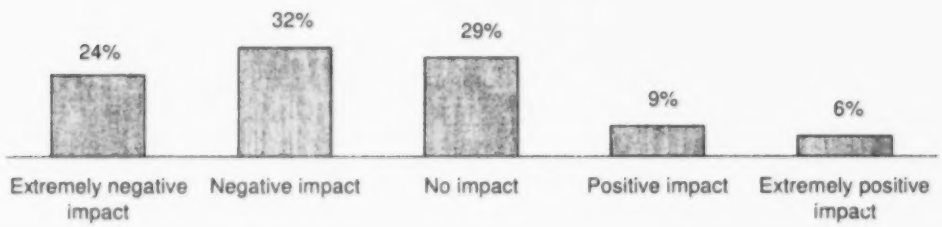
- The perceived negative impact of climate change on the health and safety of people in their community is higher among respondents aged 25 to 44. Likewise, concern is higher among those with family incomes over $100,000.
- Respondents with children under the age of 18 in the household believe the impact of climate change on health and safety will be more negative.
- Residents of Peguis First Nation are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact on the health and safety of people in their community.

The local community overall

As shown in Figure 25, just more than half of all Manitobans (56%) believe the impact of climate change on their community overall will be negative. Twenty-nine percent of Manitobans believe it will have no impact, and 15% believe it will have a positive impact overall.

Figure 25 IMPACT OF CLIMATE CHANGE ON COMMUNITY

All things considered, what impact do you think a changing climate will have for your community overall?



Note: The scale used to collect data for these questions ranged from –2 (extremely negative impact) to +2 (extremely positive impact) with a mid-point of zero (no impact).

Based on cross-tabulations, the following observations can be made:

- The perceived negative impact of climate change on the community is higher among younger Manitobans (those aged 18 to 44), and those with family incomes over $80,000.
- Individuals who rent their current dwellings are more inclined to believe the impact on their community will be negative.
- Residents of Peguis First Nation and Winnipeg are significantly more likely than are residents of any other region of Manitoba to say that the effect of a changing climate will have an extremely negative impact for their community overall.

Community programs

Hearing about climate change programs

Slightly more than four-fifths (83%) of respondents overall indicated they have not heard of climate change programs or initiatives in their local community, whereas 17% say they have heard of such programs. This finding is illustrated in Figure 26.

Figure 26 HEARD OF CLIMATE CHANGE PROGRAMS

Have you heard of any climate change programs or initiatives in your own community?

Based on cross-tabulations, the following observations can be made:

- Those employed full-time and the self-employed are more likely to have heard about climate change programs or initiatives in their community.
- Those aged 25 to 64 are more likely to have heard about these programs than are those aged 18 to 24 or over 65.
- Manitobans are more likely to report having heard about climate change programs in their community if they live in a C4/OTC community, have higher levels of concern about climate change, are male, or have higher education or family incomes. Results indicate that climate change program awareness is greater in C4/OTC communities than in non-C4/OTC communities (see Figure 27).

Figure 27 HEARING ABOUT CLIMATE CHANGE PROGRAMS AND RESIDENCE IN C4/OTC COMMUNITIES

	Have you heard of any climate change programs or initiatives in your own community	
	Yes	No
Manitobans overall	17%	83%
Non-C4/OTC communities	16%	84%
C4/OTC communities	24%	76%

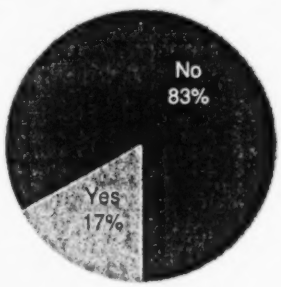
Community programs

Hearing about climate change programs

Slightly more than four-fifths (83%) of respondents overall indicated they have not heard of climate change programs or initiatives in their local community, whereas 17% say they have heard of such programs. This finding is illustrated in Figure 26.

Figure 26 HEARD OF CLIMATE CHANGE PROGRAMS

Have you heard of any climate change programs or initiatives in your own community?



Based on cross-tabulations, the following observations can be made:

Those employed full-time and the self-employed are more likely to have heard about climate change programs or initiatives in their community.

Those aged 25 to 64 are more likely to have heard about these programs than are those aged 18 to 24 or over 65.

Manitobans are more likely to report having heard about climate change programs in their community if they live in a C4/OTC community, have higher levels of concern about climate change, are male, or have higher education or family incomes. Results indicate that climate change program awareness is greater in C4/OTC communities than in non-C4/OTC communities (see Figure 27).

Figure 27 HEARING ABOUT CLIMATE CHANGE PROGRAMS AND RESIDENCE IN C4/OTC COMMUNITIES

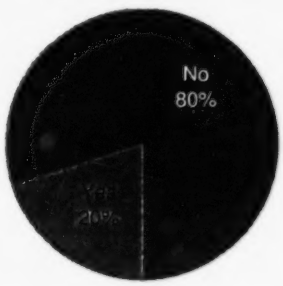
	Have you heard of any climate change programs or initiatives in your own community	
	Yes	No
Manitobans overall	17%	83%
Non-C4/OTC communities	16%	84%
C4/OTC communities	24%	76%

Familiarity with literature on local initiatives

Only one in five Manitobans say that they have received literature or read stories in their local newspaper regarding what their community is doing about climate change (see Figure 28).

Figure 28 RECEIVED LITERATURE OR READ NEWS RELATED TO CLIMATE CHANGE

Have you received literature or read stories in your local newspaper about what your community is doing about climate change?



Based on cross-tabulations, the following observations can be made:

- Those employed full-time and the self-employed are more likely to have received or read about climate change programs or initiatives in their community.
- Individuals who have heard about climate change programs or initiatives in their local community are much more likely (53%) to have received literature or read stories in the newspaper about climate change.
- Manitobans are more likely to have received literature or read stories in their local newspaper about community initiatives if they live in a C4/OTC community, have higher levels of concern about climate change, are male, or have higher education and family income. These results indicate that, as might be expected, respondents in C4/OTC communities are more likely to read about local initiatives regarding climate change than are those in non-C4/OTC communities (see Figure 29, below).

Figure 29 LITERATURE ON LOCAL INITIATIVES AND RESIDENCE IN C4/OTC COMMUNITIES

	Have you received literature or read stories in your local newspaper about what your community is doing about climate change?	
	Yes	**No**
Manitobans overall	20%	80%
Non-C4/OTC communities	19%	81%
C4/OTC communities	27%	73%

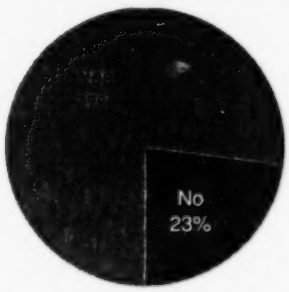
Modifying higher cost behaviours

This section explores the willingness of Manitobans to modify their behaviour by paying higher up-front costs for items that are climate-friendly and offer long-term cost savings.

Respondents were asked whether they would purchase a higher priced item that would reduce overall energy consumption. As indicated in Figure 30 below, more than three-quarters of Manitobans (77%) would be willing to reduce their energy consumption by purchasing a higher ticket item. These Manitobans represent the early adopters of climate-friendly products.

Figure 30 WILLINGNESS TO PURCHASE HIGHER PRICED ITEM TO REDUCE ENERGY CONSUMPTION

Are you willing to purchase a higher priced item like a hybrid car or an energy efficient furnace that would reduce the amount of energy you use overall?



Based on cross-tabulations, the following observations can be made:

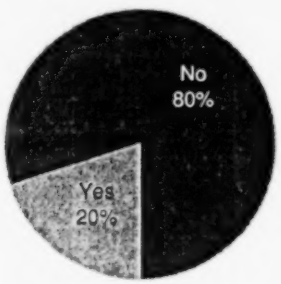
- Those with higher levels of concern about climate change are more likely to purchase a higher priced item in order to reduce energy consumption.
- Likewise, respondents who have heard of climate change programs or initiatives in their local community are more willing to purchase a higher priced item in order to reduce energy consumption.
- Manitobans with children under the age of 18 living in the household are more willing to purchase a higher priced item to reduce the amount of energy they use overall.
- Homeowners are more willing to purchase a higher priced item than renters.
- Income is an important variable explaining whether Manitobans will pay higher up-front costs on climate friendly products. Results suggest that Manitobans with lower levels of disposable income may not be able to afford the higher up-front costs associated with items such a hybrid car or energy efficient furnace, even though those items offer cost savings over the long-term. Likewise, analyzing willingness to pay higher up-front costs by employment situation reveals that retired and not employed Manitobans also find the higher up-front costs of such items to be an obstacle to purchase.

Familiarity with literature on local initiatives

Only one in five Manitobans say that they have received literature or read stories in their local newspaper regarding what their community is doing about climate change (see Figure 28).

Figure 28 RECEIVED LITERATURE OR READ NEWS RELATED TO CLIMATE CHANGE

Have you received literature or read stories in your local newspaper about what your community is doing about climate change?



Based on cross-tabulations, the following observations can be made:

- Those employed full-time and the self-employed are more likely to have received or read about climate change programs or initiatives in their community.
- Individuals who have heard about climate change programs or initiatives in their local community are much more likely (53%) to have received literature or read stories in the newspaper about climate change.
- Manitobans are more likely to have received literature or read stories in their local newspaper about community initiatives if they live in a C4/OTC community, have higher levels of concern about climate change, are male, or have higher education and family income. These results indicate that, as might be expected, respondents in C4/OTC communities are more likely to read about local initiatives regarding climate change than are those in non-C4/OTC communities (see Figure 29, below).

Figure 29 LITERATURE ON LOCAL INITIATIVES AND RESIDENCE IN C4/OTC COMMUNITIES

	Have you received literature or read stories in your local newspaper about what your community is doing about climate change?	
	Yes	**No**
Manitobans overall	20%	80%
Non-C4/OTC communities	19%	81%
C4/OTC communities	27%	73%

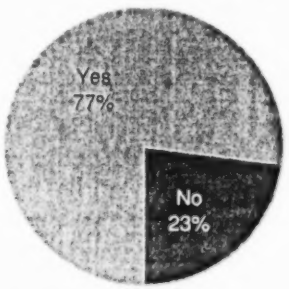
Modifying higher cost behaviours

This section explores the willingness of Manitobans to modify their behaviour by paying higher up-front costs for items that are climate-friendly and offer long-term cost savings.

Respondents were asked whether they would purchase a higher priced item that would reduce overall energy consumption. As indicated in Figure 30 below, more than three-quarters of Manitobans (77%) would be willing to reduce their energy consumption by purchasing a higher ticket item. These Manitobans represent the early adopters of climate-friendly products.

Figure 30 WILLINGNESS TO PURCHASE HIGHER PRICED ITEM TO REDUCE ENERGY CONSUMPTION

Are you willing to purchase a higher priced item like a hybrid car or an energy efficient furnace that would reduce the amount of energy you use overall?



Based on cross-tabulations, the following observations can be made:

Those with higher levels of concern about climate change are more likely to purchase a higher priced item in order to reduce energy consumption.

Likewise, respondents who have heard of climate change programs or initiatives in their local community are more willing to purchase a higher priced item in order to reduce energy consumption.

Manitobans with children under the age of 18 living in the household are more willing to purchase a higher priced item to reduce the amount of energy they use overall.

Homeowners are more willing to purchase a higher priced item than renters.

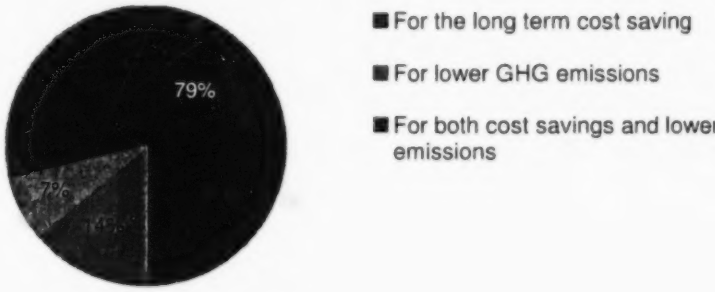
Income is an important variable explaining whether Manitobans will pay higher up-front costs on climate friendly products. Results suggest that Manitobans with lower levels of disposable income may not be able to afford the higher up-front costs associated with items such a hybrid car or energy efficient furnace, even though those items offer cost savings over the long-term. Likewise, analyzing willingness to pay higher up-front costs by employment situation reveals that retired and not employed Manitobans also find the higher up-front costs of such items to be an obstacle to purchase.

Reasons for purchasing

Manitobans who stated they would be willing to purchase a higher priced item to reduce energy consumption are defined as early adopters of climate-friendly products. These early adopters were then asked to indicate the primary reason they would purchase these types of items. Fourteen per cent can be described as "altruistic early adopters," meaning they would purchase a higher priced item in order to reduce GHG emissions, while 7% are "cost-conscious early adopters" who would do the same only for long term cost savings. Most, however, possess both sets of motivations: just under four-fifths (79%) indicated their primary reason for purchasing these higher priced items would be for *both* cost savings and lower GHG emissions.

Figure 31 REASONS FOR PURCHASING HIGHER PRICED ITEMS

Which of the following reasons would you say best describes your reasons for purchasing these types of items?



Based on cross-tabulations, the following observations can be made:

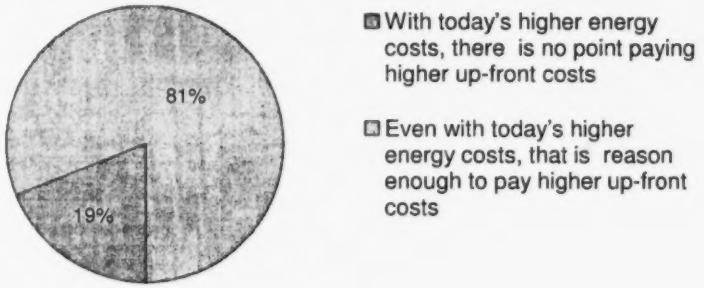
- Level of concern about climate change influences the reasons early adopters offer for purchasing higher priced items to reduce energy consumption. Individuals indicating they are not at all concerned or not very concerned about climate change are more likely to be "cost-conscious early adopters." Conversely, those indicating that they are definitely or extremely concerned about climate change are more likely to be both "altruistic" and "cost-conscious early adopters."
- Women more often see the dual benefits of purchasing these types of items, whereas men are more likely to purchase these items based on cost considerations.
- Individuals with lower levels of education are more likely to be "cost-conscious early adopters," whereas individuals with higher levels of education are more likely to be both "altruistic" and "cost-conscious" early adopters.
- Twenty-six percent of individuals with family incomes between $60,000 and $80,000 are "cost-conscious early adopters," compared to the average rate of 14% overall. Similarly, 26% of individuals with family incomes under $20,000 are "altruistic early adopters."

Impact of higher energy costs on behaviour

Individuals were asked to indicate whether higher energy prices would motivate them to change their behaviour. Four-fifths of Manitobans (81%) indicate higher energy prices will motivate them to pay higher up-front costs for things like a hybrid car because of the long-term payback. This suggests that most Manitobans are sensitive to energy prices and prepared to modify their behaviour in response to rising energy prices.

Figure 32 IMPACTS OF HIGHER ENERGY COSTS ON BEHAVIOUR

Which of the following two statements come closer to your own personal opinion?


81%
19%
With today's higher energy costs, there is no point paying higher up-front costs
Even with today's higher energy costs, that is reason enough to pay higher up-front costs

Based on cross-tabulations, the following observations can be made:

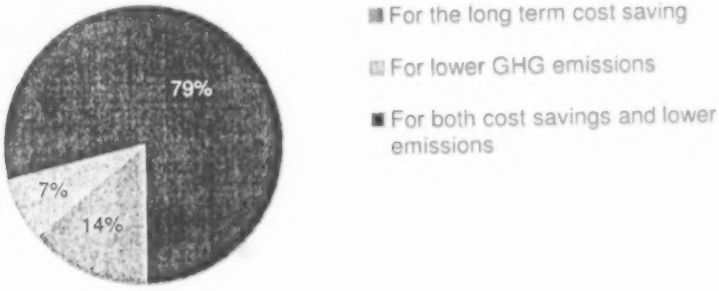
- Te level of concern expressed by respondents about climate change is related to their attitudes towards higher energy costs. The more concerned respondents are about climate change, the more likely they are to agree that higher energy costs are reason enough to pay higher up-front costs.
- Individuals living in Winnipeg are more likely to modify their behaviour in response to higher energy costs than their rural counterparts are.

Reasons for purchasing

Manitobans who stated they would be willing to purchase a higher priced item to reduce energy consumption are defined as early adopters of climate-friendly products. These early adopters were then asked to indicate the primary reason they would purchase these types of items. Fourteen per cent can be described as "altruistic early adopters," meaning they would purchase a nigher priced item in order to reduce GHG emissions, while 7% are "cost-conscious early adopters" who would do the same only for long term cost savings. Most, however, possess both sets of motivations: just under four-fifths (79%) indicated their primary reason for purchasing these higher priced items would be for *both* cost savings and lower GHG emissions.

Figure 31 REASONS FOR PURCHASING HIGHER PRICED ITEMS

Which of the following reasons would you say best describes your reasons for purchasing these types of items?



Based on cross-tabulations, the following observations can be made:

Level of concern about climate change influences the reasons early adopters offer for purchasing higher priced items to reduce energy consumption. Individuals indicating they are not at all concerned or not very concerned about climate change are more likely to be "cost-conscious early adopters." Conversely, those indicating that they are definitely or extremely concerned about climate change are more likely to be both "altruistic" and "cost-conscious early adopters."

Women more often see the dual benefits of purchasing these types of items, whereas men are more likely to purchase these items based on cost considerations.

Individuals with lower levels of education are more likely to be "cost-conscious early adopters," whereas individuals with higher levels of education are more likely to be both "altruistic" and "cost-conscious" early adopters.

Twenty-six percent of individuals with family incomes between $60,000 and $80,000 are "cost-conscious early adopters," compared to the average rate of 14% overall. Similarly, 26% of individuals with family incomes under $20,000 are "altruistic early adopters."

Impact of higher energy costs on behaviour

Individuals were asked to indicate whether higher energy prices would motivate them to change their behaviour. Four-fifths of Manitobans (81%) indicate higher energy prices will motivate them to pay higher up-front costs for things like a hybrid car because of the long-term payback. This suggests that most Manitobans are sensitive to energy prices and prepared to modify their behaviour in response to rising energy prices.

Figure 32 IMPACTS OF HIGHER ENERGY COSTS ON BEHAVIOUR

Which of the following two statements come closer to your own personal opinion?

- With today's higher energy costs, there is no point paying higher up-front costs
- Even with today's higher energy costs, that is reason enough to pay higher up-front costs

Based on cross-tabulations, the following observations can be made:

Te level of concern expressed by respondents about climate change is related to their attitudes towards higher energy costs. The more concerned respondents are about climate change, the more likely they are to agree that higher energy costs are reason enough to pay higher up-front costs.

Individuals living in Winnipeg are more likely to modify their behaviour in response to higher energy costs than their rural counterparts are.

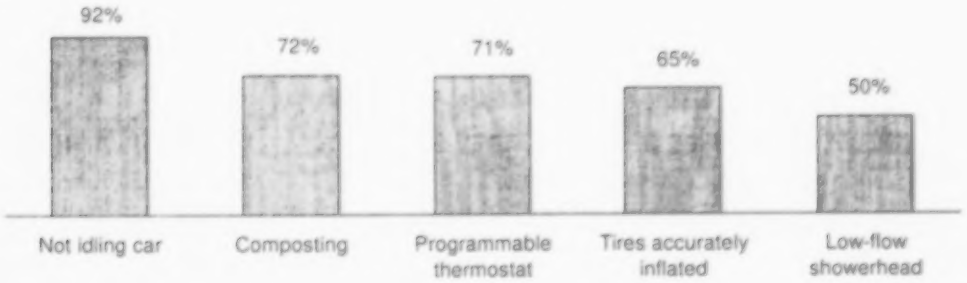
Adopting low-cost and beneficial behaviours

Five key areas (scenarios) are explored below to determine the degree of motivation to adopt behaviours that do not require significant up-front costs: installing a low-flow showerhead, composting, keeping tires accurately inflated, idling and installing a programmable thermostat.

Awareness

Manitobans are generally quite aware of the positive impact of low-cost behaviours related to energy consumption (see Figure 33, below). Behaviours related to direct consumption of fossil fuels, such as not idling cars (92%) and using programmable thermostats (71%), enjoy the highest awareness, whereas such techniques as accurately inflating tires (65%) and installing low flow showerheads (50%) to help reduce greenhouse gas emissions are not as well entrenched in Manitobans' minds

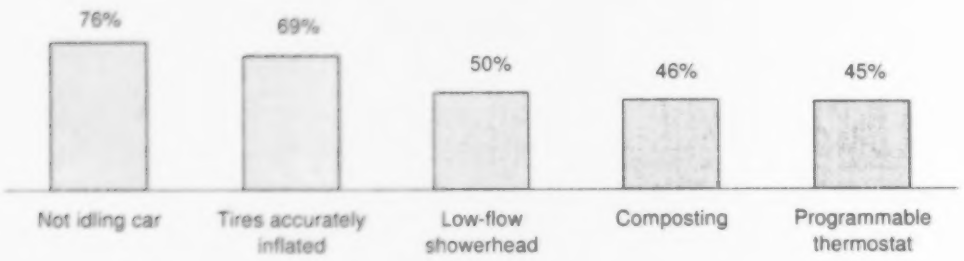
Figure 33 AWARENESS OF IMPACT OF LOW-COST INITIATIVES



Current usage

The survey measured the proportion of Manitobans who have adopted behaviours that are both low-cost and that serve to lower greenhouse gas emissions. Comparisons are shown below, in Figure 34. The behaviours that most Manitobans have adopted are not idling their vehicles (76%), and keeping their vehicle tires accurately inflated (69%). Each of the following has been adopted by 40% to 50% of Manitobans surveyed: installing a low-flow showerhead, composting kitchen waste, and installing a programmable thermostat.

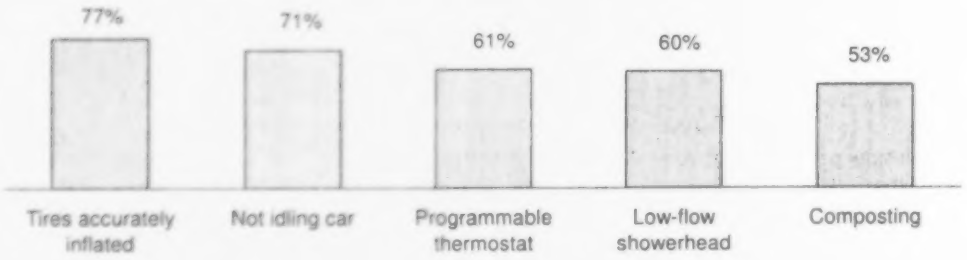
Figure 34 USAGE OF LOW-COST INITIATIVES



Motivation to change behaviour

Those not engaged in the low-cost, climate-friendly behaviours described above ("non-users") provided data on how motivated they feel to adopt each behaviour. The percentage of non-users who are "somewhat" or "very" motivated to change behaviours is shown in Figure 35. More than three-quarters feel motivated to keep their tires inflated, and nearly as many are willing to forego idling their car. Installing a programmable thermostat or a low-flow showerhead, or composting kitchen waste, are the least favoured behaviour modifications.

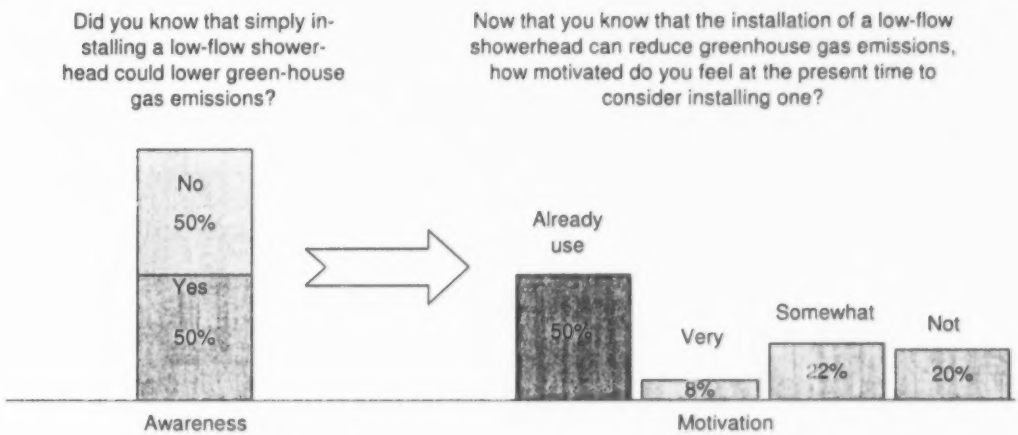
Figure 35 MOTIVATION OF NON-USERS TO USE LOW-COST INITIATIVES



Installing a low flow showerhead

Fifty per cent of Manitobans indicated they knew that installing a low-flow showerhead reduces greenhouse gas emissions and 50% of Manitobans indicated they have already installed a low-flow showerhead. While half have already installed one, 8% of Manitobans remain very motivated to install one, 22% are somewhat motivated, and 20% are not motivated.

Figure 36 DEGREE OF MOTIVATION FOR INSTALLING A LOW FLOW SHOWERHEAD



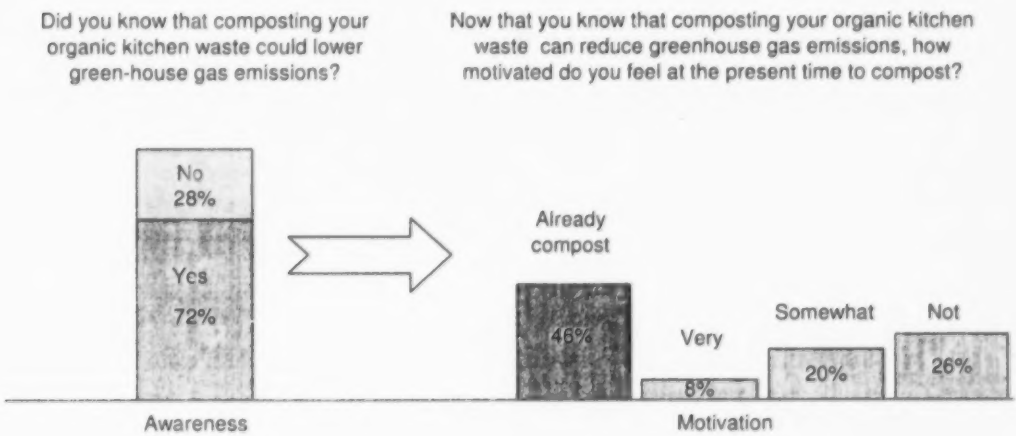
Based on cross-tabulations, the following observations can be made:

- Women, renters, individuals aged 35 to 44, and Manitobans with lower income levels are very motivated to install a low flow showerhead.
- Having heard of climate change programs or initiatives in their own community, higher levels of concern about climate change, higher education, and the presence of children under the age of 18 in the household are all positively related to whether Manitobans are very motivated to install a low-flow showerhead.

Composting

Slightly less than three-quarters of Manitobans (72%) indicated that they knew composting organic kitchen waste reduced GHG emissions, while 28% of Manitobans did not know this behaviour reduced GHG emissions. Almost half of Manitobans (46%) report that they already compost organic kitchen waste, while 8% of them are very motivated to compost, 20% are somewhat motivated to compost and 26% are not motivated to do so.

Figure 37 DEGREE OF MOTIVATION FOR COMPOSTING


Did you know that composting your organic kitchen waste could lower green-house gas emissions?
Now that you know that composting your organic kitchen waste can reduce greenhouse gas emissions, how motivated do you feel at the present time to compost?
No 28%
Yes 72%
Already compost 46%
Very 8%
Somewhat 20%
Not 26%
Awareness
Motivation

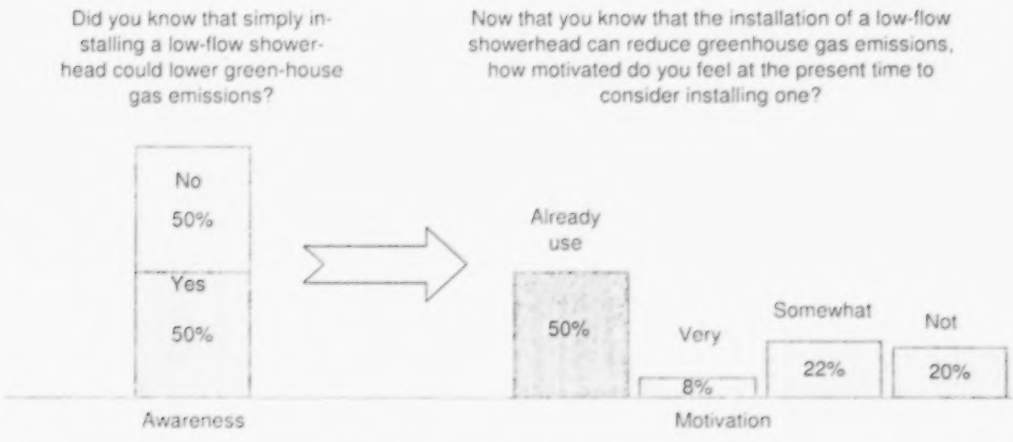
Based on cross-tabulations, the following observations can be made:

- Women, renters and Manitobans aged 25 to 44 are more likely to be very motivated to compost, as are respondents living in Peguis First Nation or in Winnipeg.
- Manitobans who have heard of climate change programs or initiatives in their own community are more likely to compost.
- Level of concern about climate change and education levels are positively related to whether Manitobans are motivated to compost. As well, respondents who have children under the age of 18 living in their household tend to be motivated to compost.

Installing a low flow showerhead

Fifty per cent of Manitobans indicated they knew that installing a low-flow showerhead reduces greenhouse gas emissions and 50% of Manitobans indicated they have already installed a low-flow showerhead. While half have already installed one, 8% of Manitobans remain very motivated to install one, 22% are somewhat motivated, and 20% are not motivated.

Figure 36 DEGREE OF MOTIVATION FOR INSTALLING A LOW FLOW SHOWERHEAD



Based on cross-tabulations, the following observations can be made:

- Women, renters, individuals aged 35 to 44, and Manitobans with lower income levels are very motivated to install a low flow showerhead.
- Having heard of climate change programs or initiatives in their own community, higher levels of concern about climate change, higher education, and the presence of children under the age of 18 in the household are all positively related to whether Manitobans are very motivated to install a low-flow showerhead.

Composting

Slightly less than three-quarters of Manitobans (72%) indicated that they knew composting organic kitchen waste reduced GHG emissions, while 28% of Manitobans did not know this behaviour reduced GHG emissions. Almost half of Manitobans (46%) report that they already compost organic kitchen waste, while 8% of them are very motivated to compost, 20% are somewhat motivated to compost and 26% are not motivated to do so.

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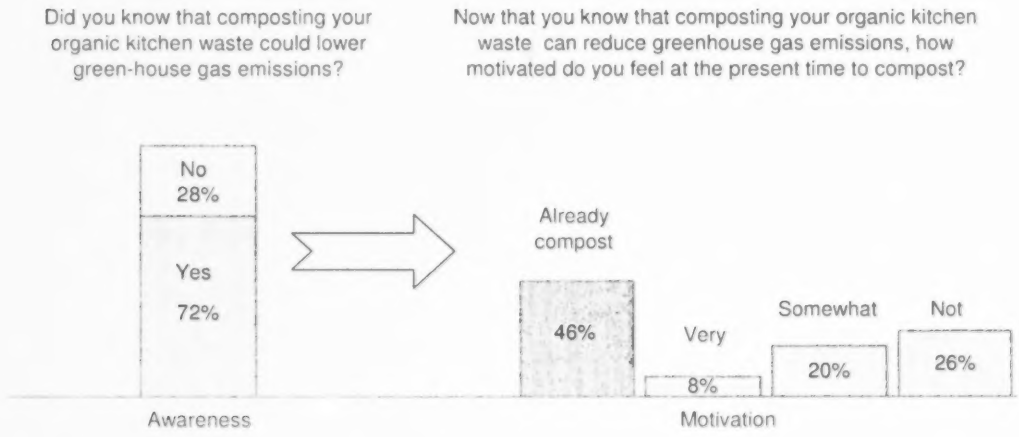


Based on cross-tabulations, the following observations can be made:

Women, renters and Manitobans aged 25 to 44 are more likely to be very motivated to compost, as are respondents living in Peguis First Nation or in Winnipeg.

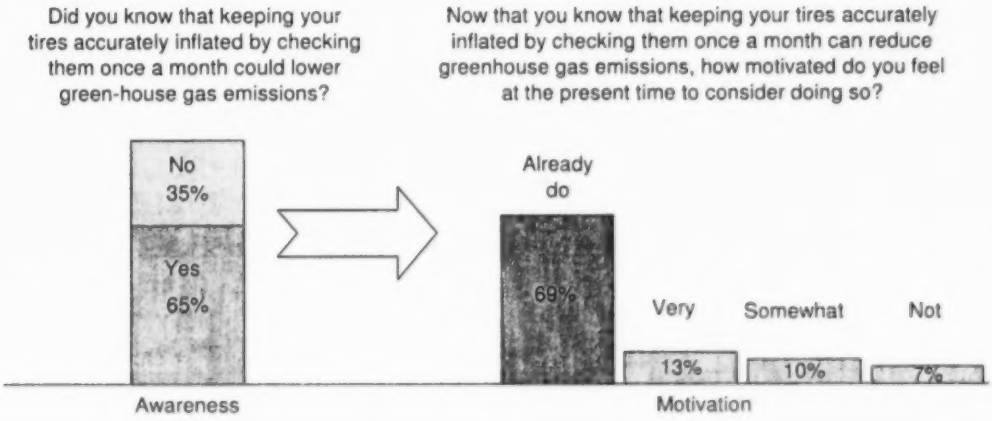
Manitobans who have heard of climate change programs or initiatives in their own community are more likely to compost.

Level of concern about climate change and education levels are positively related to whether Manitobans are motivated to compost. As well, respondents who have children under the age of 18 living in their household tend to be motivated to compost.

Keeping tires accurately inflated

Almost two-thirds of Manitobans (65%) indicated they knew that keeping tires accurately inflated reduces greenhouse gas emissions, and 69% of Manitobans say they already keep their tires accurately inflated. Those Manitobans who do not at present keep their tires accurately inflated (31%) can be further divided into 13% who say they are very motivated to accurately inflate their tires, 10% who are somewhat motivated to do so, and 7% are not motivated to do so.

Figure 38 DEGREE OF MOTIVATION FOR KEEPING TIRES ACCURATELY INFLATED


Did you know that keeping your tires accurately inflated by checking them once a month could lower green-house gas emissions?
Now that you know that keeping your tires accurately inflated by checking them once a month can reduce greenhouse gas emissions, how motivated do you feel at the present time to consider doing so?
No 35%
Yes 65%
Already do 69%
Very 13%
Somewhat 10%
Not 7%
Awareness
Motivation

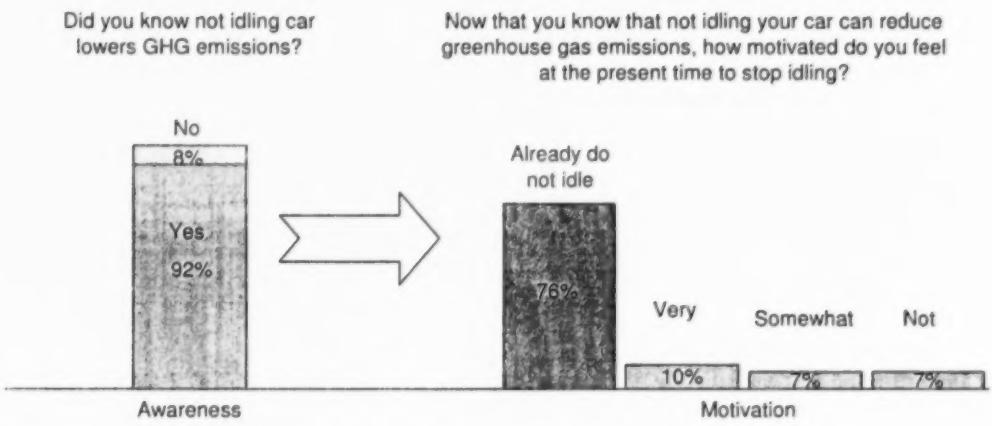
Based on cross-tabulations, the following observations can be made:

- Women, homeowners, individuals aged 25 to 44, and Manitobans with lower income levels are those most likely to be very motivated to keep their tires accurately inflated.
- Education and level of concern about climate change are positively related to whether Manitobans are very motivated to keep their tires accurately inflated. The presence of children aged under 18 in the household is also associated with greater motivation to keep tires inflated accurately.

Idling

A large majority of Manitobans (92%) is aware that not idling a vehicle reduces GHG emissions. Three-quarters (76%) have already modified their behaviour by not idling their vehicle. Of the 24% of Manitobans who still do idle their vehicle, 10% of them report being very motivated to stop idling, 7% somewhat motivated to stop idling, and 7% not motivated to adopt this behaviour.

Figure 39 DEGREE OF MOTIVATION TO STOP IDLING VEHICLE



Based on cross-tabulations, the following observations can be made:

- Renters and individuals aged 25 to 34 or 65 and over are those most motivated to stop idling vehicles.
- Education and level of concern about climate change are positively related to whether Manitobans are very motivated to stop idling their vehicles. The presence of children aged under 18 in the household is also associated with greater motivation to stop idling.

Keeping tires accurately inflated

Almost two-thirds of Manitobans (65%) indicated they knew that keeping tires accurately inflated reduces greenhouse gas emissions, and 69% of Manitobans say they already keep their tires accurately inflated. Those Manitobans who do not at present keep their tires accurately inflated (31%) can be further divided into 13% who say they are very motivated to accurately inflate their tires, 10% who are somewhat motivated to do so, and 7% are not motivated to do so.

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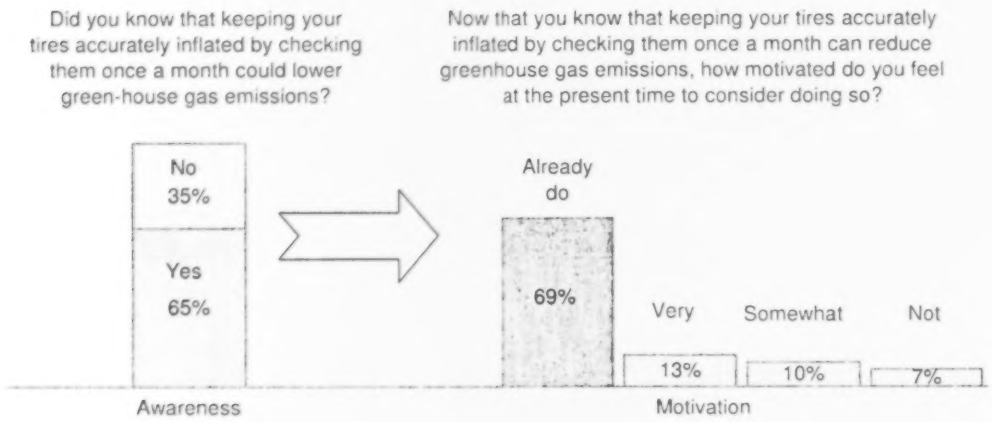
Did you know that keeping your tires accurately inflated by checking them once a month could lower green-house gas emissions?
Now that you know that keeping your tires accurately inflated by checking them once a month can reduce greenhouse gas emissions, how motivated do you feel at the present time to consider doing so?
No 35%
Yes 65%
Already do
69%
Very
Somewhat
Not
13%
10%
7%
Awareness
Motivation

Based on cross-tabulations, the following observations can be made:

- Women, homeowners, individuals aged 25 to 44, and Manitobans with lower income levels are those most likely to be very motivated to keep their tires accurately inflated.

- Education and level of concern about climate change are positively related to whether Manitobans are very motivated to keep their tires accurately inflated. The presence of children aged under 18 in the household is also associated with greater motivation to keep tires inflated accurately.

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A large majority of Manitobans (92%) is aware that not idling a vehicle reduces GHG emissions. Three-quarters (76%) have already modified their behaviour by not idling their vehicle. Of the 24% of Manitobans who still do idle their vehicle, 10% of them report being very motivated to stop idling, 7% somewhat motivated to stop idling, and 7% not motivated to adopt this behaviour.

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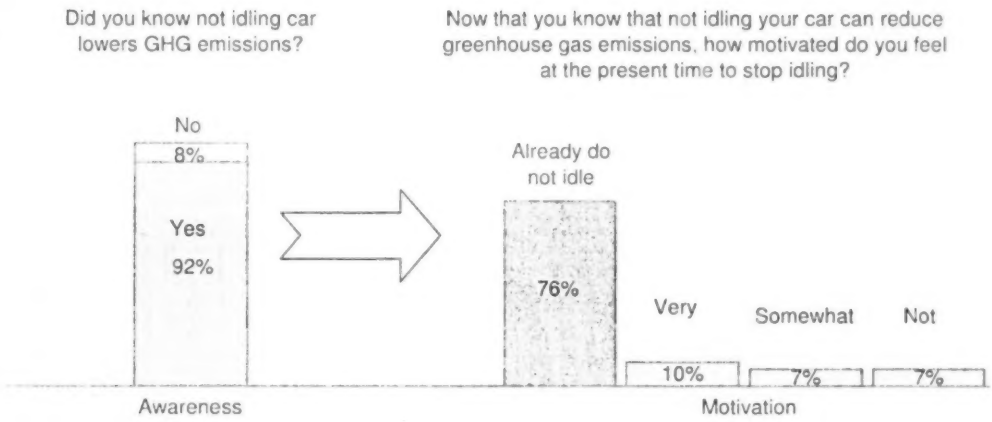


Based on cross-tabulations, the following observations can be made:

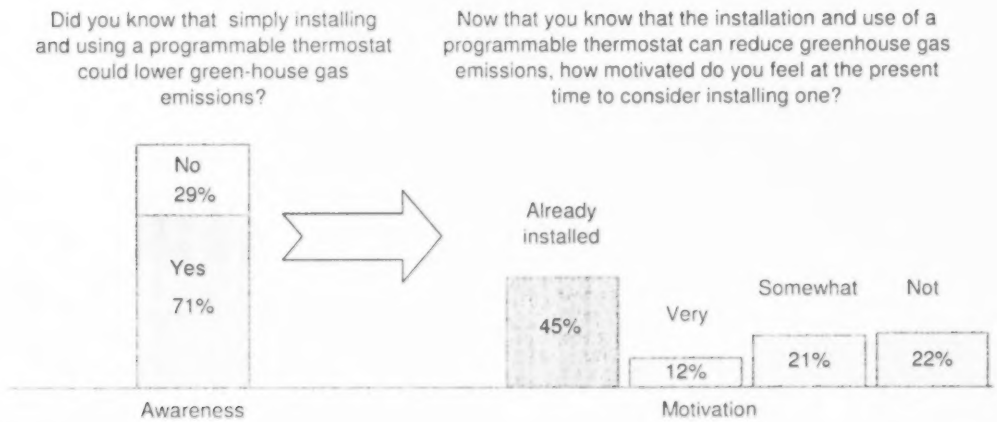
Renters and individuals aged 25 to 34 or 65 and over are those most motivated to stop idling vehicles.

Education and level of concern about climate change are positively related to whether Manitobans are very motivated to stop idling their vehicles. The presence of children aged under 18 in the household is also associated with greater motivation to stop idling.

Installing a programmable thermostat

Almost three-quarters of Manitobans (71%) know that installing and using a programmable thermostat reduces GHG emissions. Almost half of Manitobans (45%) report having installed a programmable thermostat already. Of the 55% of Manitobans who have not yet installed a programmable thermostat, 12% say they are very motivated, 21% are somewhat motivated, and 22% are not motivated to do so.

Figure 40 DEGREE OF MOTIVATION TO INSTALL A PROGRAMMABLE THERMOSTAT



Based on cross-tabulations, the following observations can be made:

- Individuals aged 25 to 44 and those 55 to 64 are more likely to install a programmable thermostat.
- Manitobans working full-time and not currently employed are more motivated to install a programmable thermostat.
- Education and level of concern about climate change are positively related to whether Manitobans are very motivated to install a programmable thermostat. The presence of children aged under 18 in the household is also associated with greater motivation to install a programmable thermostat.

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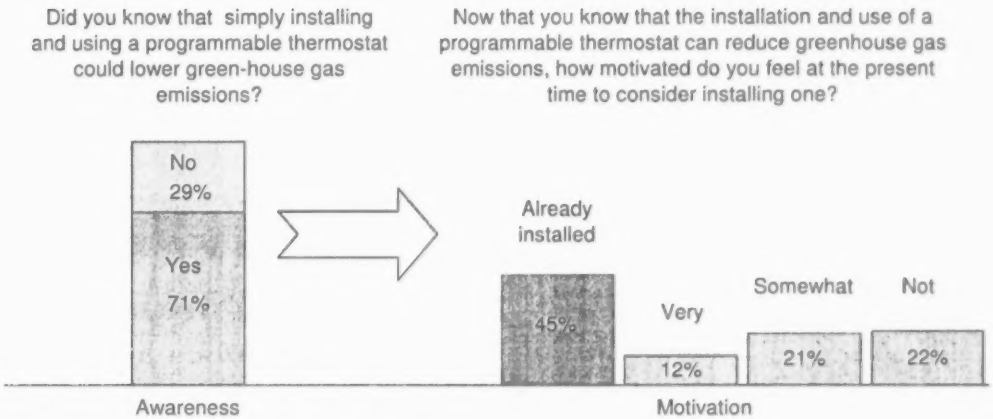
Figure 40 DEGREE OF MOTIVATION TO INSTALL A PROGRAMMABLE THERMOSTAT


Did you know that simply installing and using a programmable thermostat could lower green-house gas emissions?
Now that you know that the installation and use of a programmable thermostat can reduce greenhouse gas emissions, how motivated do you feel at the present time to consider installing one?
No 29%
Yes 71%
Already installed
45%
Very
12%
Somewhat
21%
Not
22%
Awareness
Motivation

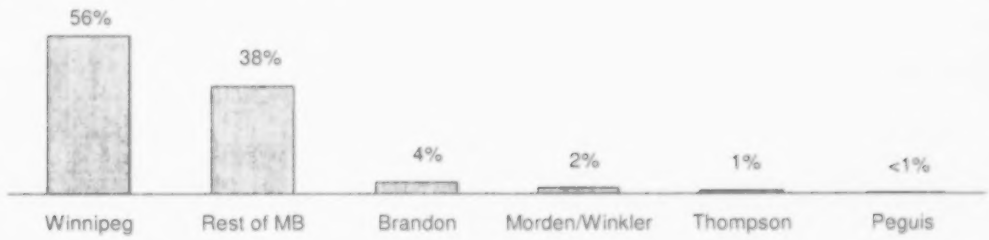
Based on cross-tabulations, the following observations can be made:

- Individuals aged 25 to 44 and those 55 to 64 are more likely to install a programmable thermostat.
- Manitobans working full-time and not currently employed are more motivated to install a programmable thermostat.
- Education and level of concern about climate change are positively related to whether Manitobans are very motivated to install a programmable thermostat. The presence of children aged under 18 in the household is also associated with greater motivation to install a programmable thermostat.

Demographics

Region

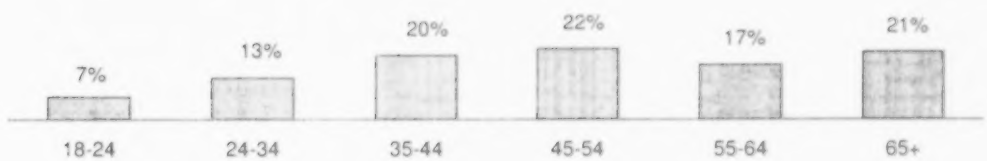
Figure 41 REGION (WEIGHTED)



Note: Total percentages may not equal 100% due to rounding. Figures less than 0.5% are shown as "<1%."

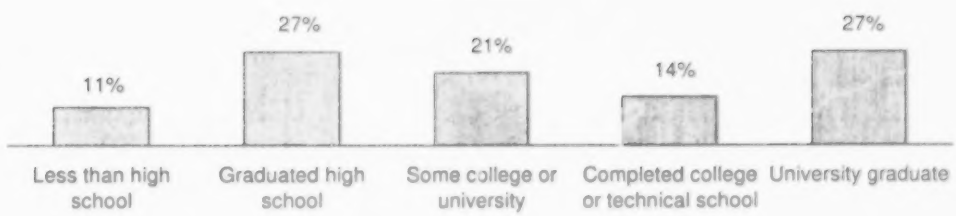
Age

Figure 42 AGE



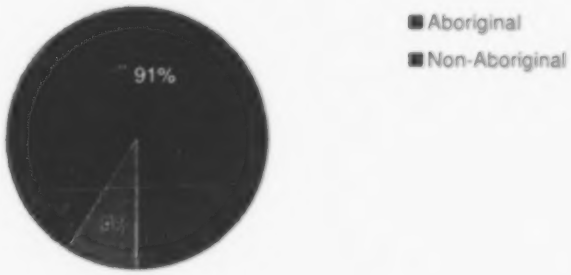
Education

Figure 43 LEVEL OF EDUCATION



Ancestry

Figure 44 ABORIGINAL ANCESTRY

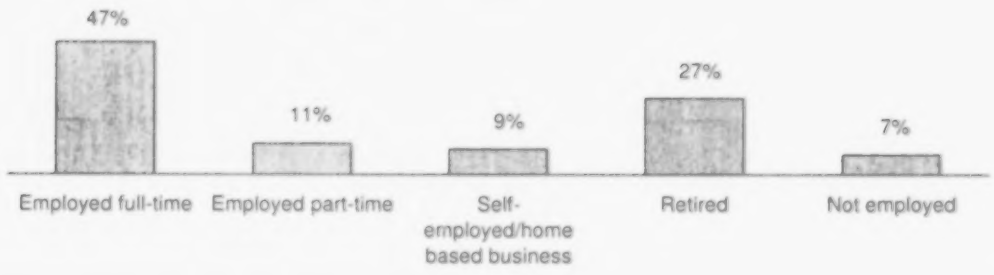


Children living in household

Figure 45 PRESENCE OF CHILDREN AGED UNDER 18 IN HOUSEHOLD

Employment

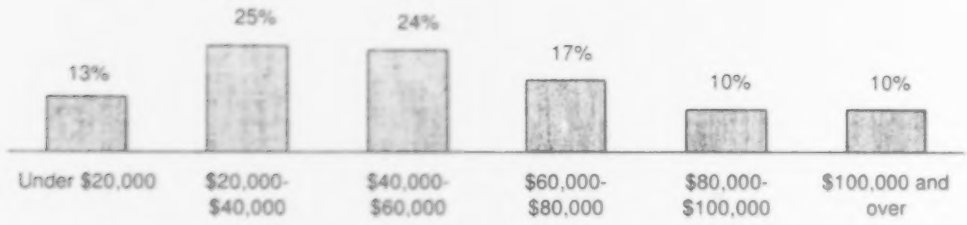
Figure 46 EMPLOYMENT SITUATION



Note: Total percentages may not equal 100% due to rounding.

Income

Figure 47 ANNUAL FAMILY INCOME



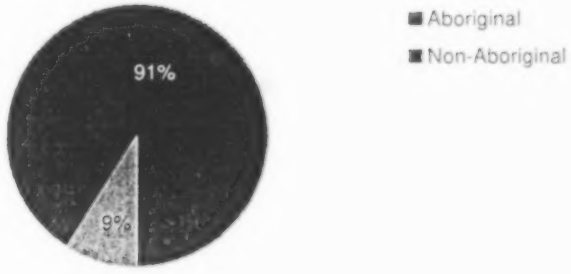
Note: Total percentages may not equal 100% due to rounding.

Homeowner versus tenant status

Figure 48 CURRENT HOME OWNERSHIP STATUS

Ancestry

Figure 44 ABORIGINAL ANCESTRY



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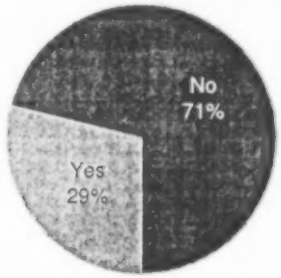


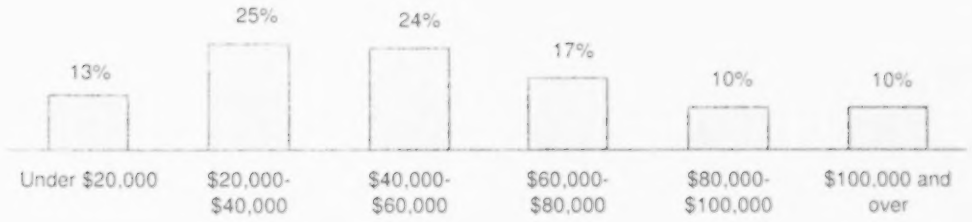
Employment

Figure 46 EMPLOYMENT SITUATION

Note: Total percentages may not equal 100% due to rounding.

Income

Figure 47 ANNUAL FAMILY INCOME



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Homeowner versus tenant status

Figure 48 CURRENT HOME OWNERSHIP STATUS